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CALIFORNIA SCHOOLHOUSE FOR $500

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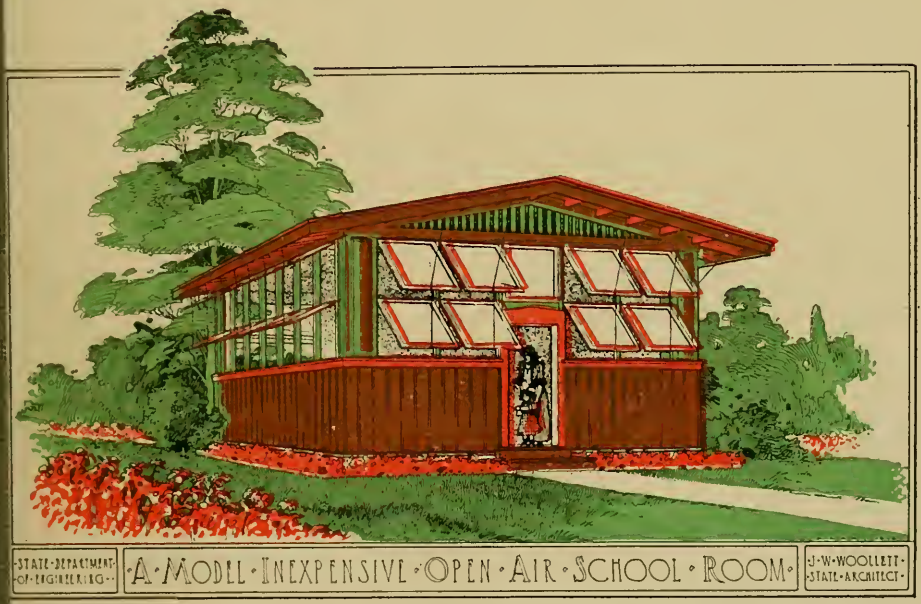
OUTDOOR SCHOOLHOUSES AT FRESNO



ISSUED BY

EDWARD HYATT

Superintendent of Public Instruction

California. Dept. of public instruction

Printed at State Printing Office, Friend Wm. Richardson, Superintendent.

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This is the sixth of a series of leaflets on Health Conservation authorized by the legislature of 1911 at the request of the Women's Christian Temperance Union of the State of California, under the auspices of Mrs. Sara J. Dorr, the president, and Miss Anna E. Chase, the secretary. It is, therefore, appreciatively inscribed to the good women of that organizatian, those who never weary in well doing, and who make such a powerful influence for good in every corner of our commonwealth.

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A SCHOOLHOUSE FOR $500.

To the School Trustees of California:

Ladies and Gentlemen: We have frequent requests for information about outdoor schoolhouses, overflow schoolhouses, temporary schoolhouses, portable schoolhouses, which can be constructed at moderate cost. Consequently I have been looking at this class of buildings up and down the State with curious interest for some time past. Oakland has some fine examples; San Diego has an excellent plan; and other cities have various expedients; but I was so particularly struck with the beauty and the utility and the low price of the Fresno idea that it seemed worth while to reproduce it on paper in this way so that you can all see it and consider it and have it in mind against a time of need

This Fresno plan was originated by Superintendent McLane of that city, working with Dr. Snyder, of the Fresno Normal School. They have worked the whole idea out in a practical way, and have used it many times in building overflow rooms, for their city schools; and it is now being used in constructing the numerous temporary class rooms of the State Normal School. In actual practice at Fresno its cost complete is a trifle under $500. It can be built by any carpenter or handy mechanic.

In appearance, the building is tasteful and beautiful. It has no glass windows; yet the light through the canvas panels is more perfect and more agreeable than in any other building. It has only one door. It is heated by a little air-tight stove. It is so perfectly ventilated that the teachers and the children very much prefer it to any other. Garlic, as a staple article of diet, loses all terrors. The deadly schoolroom smell disappears. It is more completely an outdoor school than any other device I have seen. With the awnings raised, it is a beautiful place, full of the light, the air, the soft breezes, the swaying branches, the freedom of all outdoors.

Naturally, canvas and screen wire are not as solid and permanent as brick and mortar; yet, the frame, floor and roof being substantial, the canvas tight-stretched and the screening well put on, the building will give service for a number of years. It seems to afford all desirable protection against both wind and rain. In our California climate, it is much more wholesome in every way for the children than the proudest structure in the State.

I would not discourage any community from constructing a splendid modern school for its young people, the best it can afford. Yet, it is well to remember that the very best schoolhouses in the land are hopelessly out of date, inadequate, ill adapted to their purpose as soon as

they are twenty years old. The future will doubtless see changes no less than the past. In many cases it might be well to use these hygienic, low cost, temporary houses, replacing them when necessary, and changing them as our knowledge of schoolhouse construction advances.

Naturally a large school, having library, auditorium, laboratories and the like needs more than these outdoor class rooms alone. State Architect Woollett has made a study for a roomy administration building at the center of a quadrangle of class rooms, which may be changed or added to at will. This of course is only a suggestion, for thought and discussion. It would be possible, too, to have a handsome permanent central building of brick or cement, with as many of the outdoor rooms as might be needed.

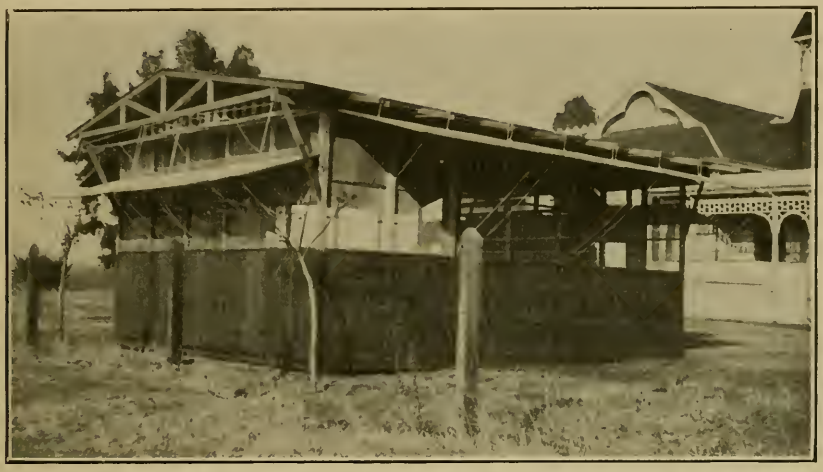
I am sure that the school trustees of the State will find in the following pages some things to look at, talk over, and think about. Their thinking will do the State good. Their ideas about the building of schoolhouses are very important to the welfare of the commonwealth.

Very truly yours,

EDWARD HYATT,
Superintendent Public Instruction.

Interior of Outdoor School. Observe that the children are living in the free outdoors, where they can feel the breeze and hear the birds and see the swaying trees. The ceiling and woodwork are in natural wood, giving a cheerful, well lighted effect. In cold or wet weather or in high winds, the awnings are fastened down and a fire is built in the stove.

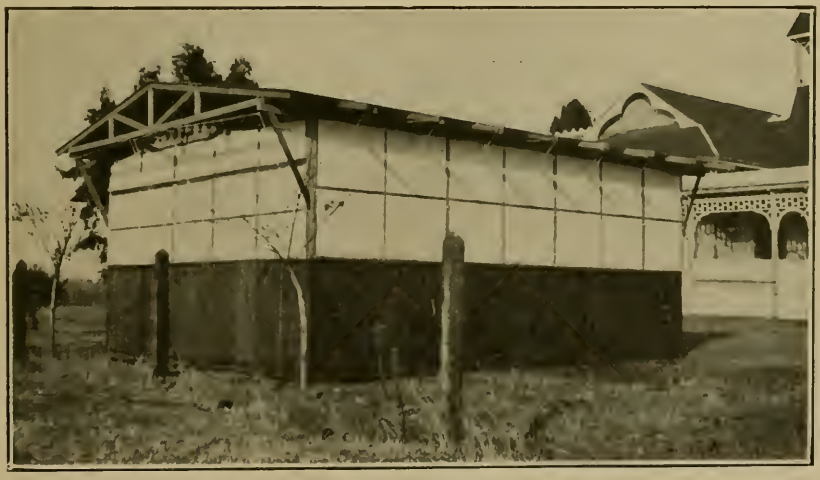
In constructing these buildings the greatest economy consistent with utility has been practiced. With these restrictions in mind they have been constructed in such a manner as to secure the maximum amount of air and light, protection from flies and likewise protection from excessive



Rear and Side View of Outdoor School, Showing Awnings Open to the Outside Air. Screen wire under the awnings keeps out the flies.

heat and cold. The awnings have been constructed so as to provide for proper ventilation when the buildings are closed in excessive rough or cold weather. The buildings themselves have also been constructed in such a manner as to make them readily portable.

Economy of construction will largely govern for any given community the kind of lumber used for construction. A light material for the



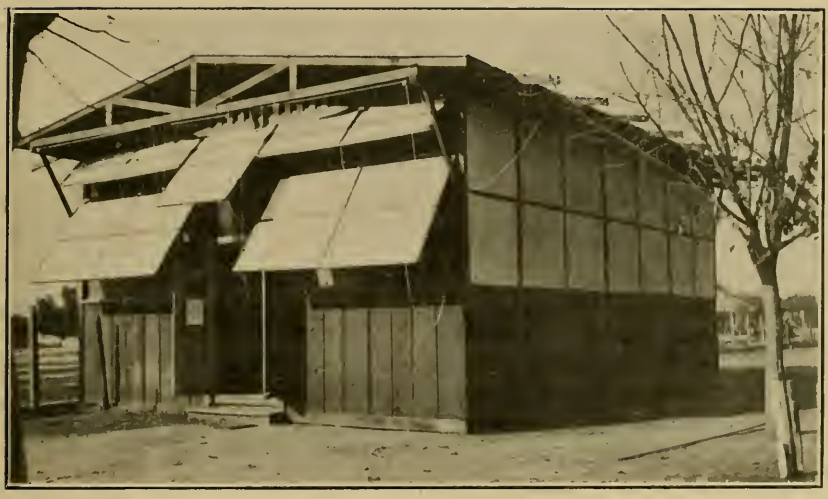
Rear and Side View of Outdoor School, Showing Awnings Down Ready for Storm. There is no glass at all in the building, but it is perfectly lighted through these canvas awnings, and perfectly ventilated, too.

ceiling and for the screen separating the cloak room from the main room is preferable on account of the effect upon the light. In case a dark wood such as redwood is used it will be necessary to paint the interior. The color of such paint should be deep cream, yellowish

Front View of Outdoor School. The outside, double doors open into the cloakroom, and the cloakroom opens into the schoolroom. There is only the one outside opening.

bronze, or a very light tan. However, it will probably be found that the use of a dark wood and paint in the interior will be more expensive and will give less attractive results than the use of a light wood with a natural finish. In the Fresno buildings boiled linseed oil has been used for the entire interior including the floor. The frames of the awnings and doors have also been treated in the same manner while the outside of the baluster has been stained to produce a little darker shade.

Interior View of Outdoor School, Showing Screens and Stove. The teacher's blackboard is against the partition between cloakroom and schoolroom. This partition extends only part way to the ceiling and permits a free circulation of air.



Front View of Outdoor School, Showing Awnings Partly Raised. The awnings are adjusted to any angle by cords attached to the long rafters, thus controlling the direct sunlight. The house has a good floor and roof. It is beautiful to look at. The walls are solid up to the blackboard. Above, they are screened everywhere and protected by wooden frames covered with tightly stretched canvas.

Itemized Invoice of Materials and Their Uses, Together with Cost of Structure.

Rough Redwood. Framing, No. 1. Common.

5 pieces 4 x 4 x 18 5 pieces 4 x 4 x 16	Mudsills.
4 pieces 2 x 6 x 16 2 pieces 2 x 6 x 12 2 pieces 2 x 6 x 10	Water-table and Baseboard.

Rough Framing Material—No. 1. Common.

24 pieces 2 x 6 x 22.	Lower joists.
4 pieces 2 x 6 x 16.	Box joints.
15 pieces 2 x 4 x 22.	Upper joists.
2 pieces 3 x 4 x 22.	Upper joists—ends building.
7 pieces 3 x 4 x 14.	End rafters and trusses.
16 pieces 2 x 4 x 16.	Extending rafters.
14 pieces 2 x 4 x 14.	Rafters.
24 pieces 1 x 4 x 16.	Trussing rafters and attic lattice.

Common Fir or Mountain Pine—Sized.

54 pieces 1 x 12 x 12.	Sheeting.
27 pieces 1 x 12 x 14.	Sheeting.

Flooring No. 2. Oregon Pine.

80 pieces 1 x 4 x 14.
80 pieces 1 x 4 x 18.

Ceiling No. 2.

850 board feet, 5/8 x 4.

Mountain Pine—Select Common—S 4 S.

32 pieces 4 x 4 x 12.	Studs, plates, stringers.
2 pieces 4 x 4 x 14.	Plates.

2 pieces 4 x 4 x 22. Plates.
2 pieces 2 x 4 x 12. Braces.
2 pieces 1 x 6 x 12. Braces.
32 pieces 1 x 12 x 16. Baluster.
10 pieces 1 x 12 x 18. Screen—Cloak room.
4 pieces 1 x 8 x 16. Fascia.

Clear Sugar Pine—S 4 S.

50 linear feet 1 x 1
700 linear feet 1 x 2 } Awning frames.
170 linear feet 1 x 4

700 linear feet ½ x 1
1500 linear feet ½ x 2 } Screen and awning molding, and batting.
450 linear feet ½ x 4

102 linear feet 2 x 3. Chalk trough. See Detail Drawing II.
2 1¼ inches x 2 feet x 6 feet 8 inches. Panel doors.

No. 2. Clear Mountain Pine.

168 linear feet 2 x 4. Baluster rail. See Detail Drawing II.
160 linear feet 1¼ x 2. Triangular Molding.
200 linear feet ⅜ x ¼. Quarter Round.

Cost of Lumber and Milling ..... $ 215 00

Hardware.

Galvanized Fly Screen.

42 inches wides—124 feet. For sides of building.
28 inches wide— 88 feet.
26 inches wide— 44 feet. } For ends of building.
3/16-inch cotton rope—1150 feet. For awnings.
Side Pulleys, 14.
Swivel Pulleys with screw eyes. } For above rope.
Eye bolts, 48. For fastening ropes to awnings.
2 inches x 3 inches butt hinges, 27 pair. For swinging awnings.
Line Cleats, 32. For fastening ropes inside building.
Chief Shelby double acting floor hinges, 2 sets
Door Slide bolt, top 1
Door slide bolt, bottom 1 } For outside door.
Dead lock, no knob, 1
No. 6 wire tacks, 2 pounds.
3 penny shingle nails, 5 pounds.
10 penny box nails, 20 pounds.
5 penny finishing nails, 3 pounds.
30 penny spikes, 10 pounds.

Cost of hardware $52 00
8-ounce canvas, 83 inches wide, 108 feet long, for awnings, cost 15 00
1 ply red ring roofing, 11 squares, cost 16 00

Hyloplate.

4 pieces 4 feet x 10 feet. To be cut into 30 inch lengths.
1 piece 3 feet x 12 feet
1 piece 3 feet x 6 feet } Teacher's board.

Cost 42 80
Boiled linseed oil and color 13 50
Cost of labor complete 152 50

Total cost of structure $506 80

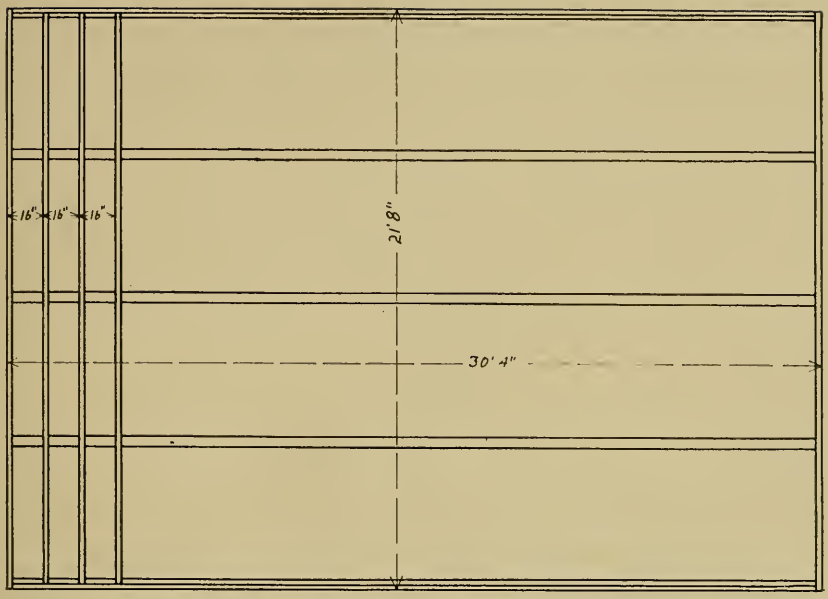


Plate 1.
Foundation Plan Showing Position of Joists and Mudsills. Scale $\frac{1}{4}$" = 1'

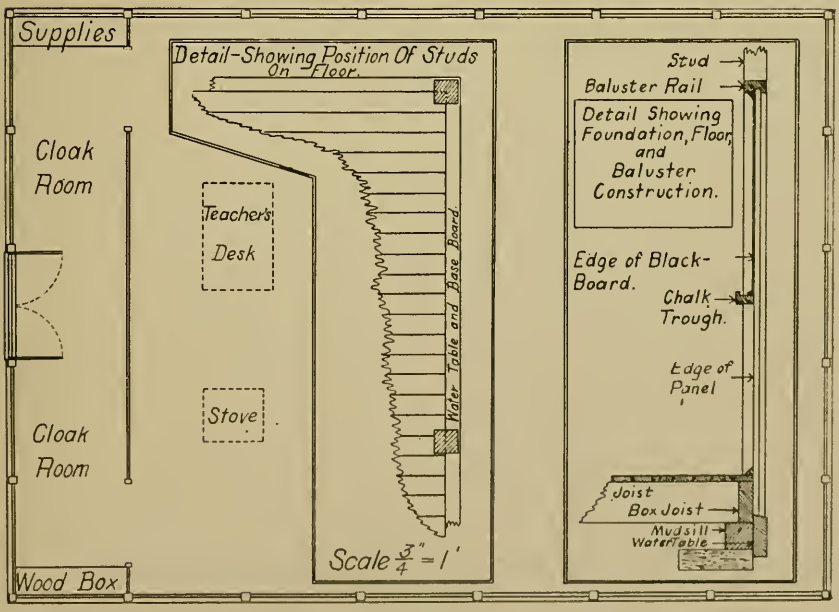


Plate 2.
Cross Section Just Above The Floor.

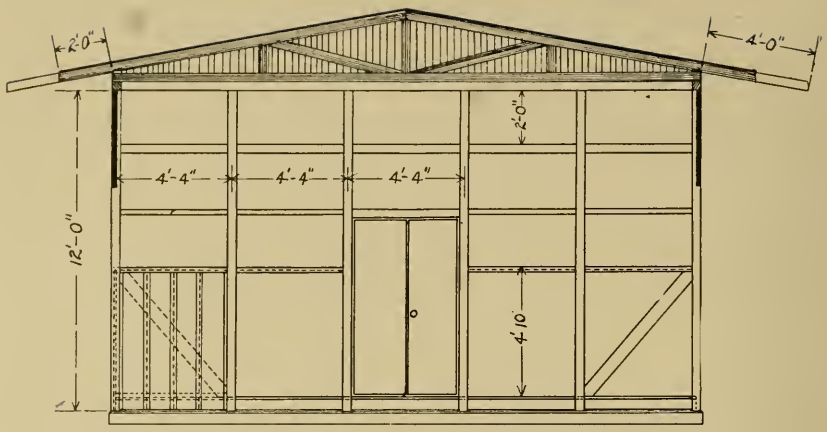


Plate 3.

Front elevation primary school building showing framework without screens or awnings. Rear elevation same except central panel which is same as others. Rise of roof 2 to 11.

Scale 1/4"=1'-0"

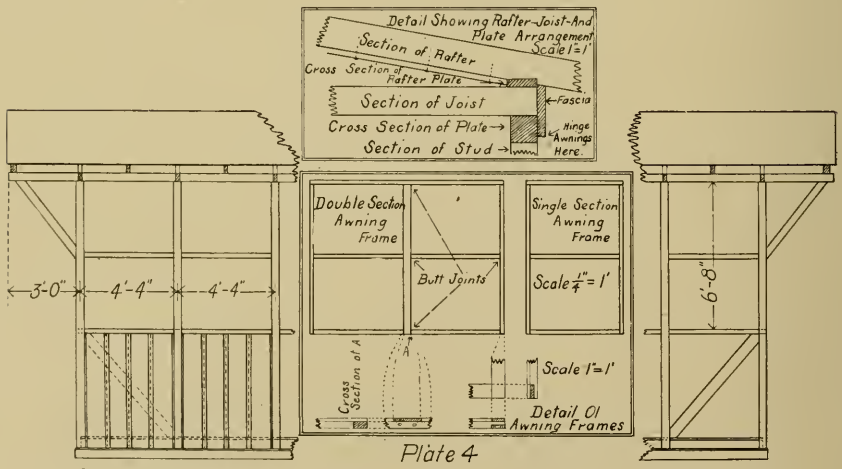


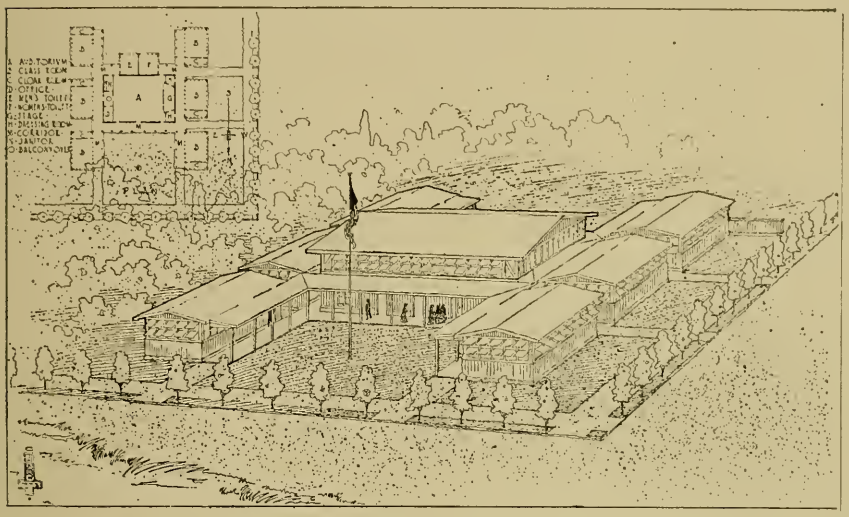
Plate 4

Side elevation of primary school building showing frame without screens or awnings. Four sections have been omitted from this drawing

Scale 1/4"=1'

A LARGER OUTDOOR SCHOOL.

Here is the state architect's idea of a larger and more comprehensive outdoor school, based on the Fresno plan. It consists of six classrooms and a central administrative building with an auditorium. Its cost is estimated from $6,000 to $10,000. The central building might be made of permanent materials, at an increased cost, of course.



N. B.—The state architect, Mr. J. B. Woollett, has prepared a large sheet of detailed plans, for the one-room outdoor school, suitable for a mechanic to use in constructing the building. Anyone desiring a copy can have it by applying to either the State Architect or the Superintendent of Public Instruction, enclosing 25 cents to pay for the expense of a blue print. Any handy carpenter can do the job.

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